

11-20-00

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11/17/00
JC830 U.S. PTO

Attorney's Docket No. _____

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

JC853 U.S. PTO
09/715456
11/17/00

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s):

Egor Ciotic

WARNING: Patent must be applied for in the name(s) of all of the actual inventor(s). 37 CFR 1.41(a) and 1.53(b).

For (title):

PORTABLE VENTING COMMODE

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date NOVEMBER 17, 2000, in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EK893 957999US, addressed to the: Commissioner for Patents, Washington, D.C. 20231.

RISTO A. RINNE, Jr

(type or print name of person mailing paper)

RRR 11/17/00 # 37,055

Signature of person mailing paper

NOTE: Each paper or fee referred to as enclosed herein has the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 CFR 1.10(b).

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 CFR 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

1. Type of Application

This new application is for a(n)

(check one applicable item below)

- ☒ Original (nonprovisional)
☐ Design
☐ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

NOTE: If one of the following 3 items apply, then complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED** and a **NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION**.

- ☐ Divisional.
☐ Continuation.
☐ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

3. Papers Enclosed That Are Required for Filing Date under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

21 Pages of specification
5 Pages of claims
1 Pages of Abstract
6 Sheets of drawing

- ☐ formal
☒ informal

WARNING: *DO NOT* submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. Comments on proposed new 37 CFR 1.84. Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c)).

(complete the following, if applicable)

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

4. Additional papers enclosed

- ☐ Preliminary Amendment
☐ Information Disclosure Statement (37 CFR 1.98)
☐ Form PTO-1449
☐ Citations
☐ Declaration of Biological Deposit
☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative
☐ Special Comments
☐ Other

5. Declaration or oath

☒ Enclosed
Executed by

(check all applicable boxes)

☒ inventor(s).

- ☐ legal representative of inventor(s).
37 CFR 1.42 or 1.43.
☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.
☐ Not Enclosed.

WARNING: Where the filing is a completion in the U.S. of an International Application, but where a declaration is not available, or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.

- ☐ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of all the above named inventor(s).

(The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).

NOTE: It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).

- ☐ Showing that the filing is authorized.
(not required unless called into question. 37 CFR 1.41(d))

6. Inventorship Statement

WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.

The inventorship for all the claims in this application are:

☒ The same.

or

- ☐ Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
- ☐ is submitted.
 - ☐ will be submitted.

7. Language

NOTE: An application including a signed oath or declaration may be filed in a language other than English. A verified English translation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 CFR 1.52(d).

NOTE: A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).

☒ English

☐ Non-English

☐ The attached translation is a verified translation. 37 CFR 1.52(d).

8. Assignment

☐ An assignment of the invention to _____

☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters—one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

WARNING: A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

9. Certified Copy

Certified copy(ies) of application(s)

country	appln. no.	filed
country	appln. no.	filed
country	appln. no.	filed

from which priority is claimed

- ☐ is (are) attached.
☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 CFR 1.16)

A. ☒ Regular application

CLAIMS AS FILED			
Number filed	Number Extra	Rate	Basic Fee 37 CFR 1.16(a) \$710-
Total Claims (37 CFR 1.16(c)) 18 - 20 = ϕ	\times	\$ 18.00	—
Independent Claims (37 CFR 1.16(b)) 1 - 3 = ϕ	\times	\$ 80.00	—
Multiple dependent claim(s), if any (37 CFR 1.16(d)) —	$+$	\$ 270.00	—

- ☐ Amendment cancelling extra claims enclosed.
☐ Amendment deleting multiple-dependencies enclosed.
☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation

\$ 710.00



- B. ☐ Design application
(\$310.00—37 CFR 1.16(f))

Filing Fee Calculation

\$ _____

- C. ☐ Plant application
(\$530.00—37 CFR 1.16(g))

Filing fee calculation

\$ _____

11. Small Entity Statement(s)

- ☒ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is (are) attached.

WARNING: "Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. A nonprovisional application claiming benefit under 35 U.S.C. 119(e), 120, 121 or 365(c) of a prior application may rely on a verified statement filed in the prior application if the nonprovisional application includes a reference to a verified statement in the prior application or includes a copy of the verified statement filed in the prior application if status as a small entity is still proper and desired." 37 C.F.R. § 1.28(a).

(complete the following, if applicable)

- ☐ Status as a small entity was claimed in prior application
_____/_____, filed on _____, from which benefit
is being claimed for this application under:

35 U.S.C. ☐ 119(e),
☐ 120,
☐ 121,
☐ 365(c),

and which status as a small entity is still proper and desired.

- ☐ A copy of the verified statement in the prior application is included.

Filing Fee Calculation (50% of A, B or C above)

\$ 355.00

NOTE: Any excess of the full fee paid will be refunded if a verified statement and a refund request are filed within 2 months of the date of timely payment of a full fee. The two-month period is not extendable under § 1.136. 37 CFR 1.28(a).

12. Request for International-Type Search (37 CFR 1.104(d))

(complete, if applicable)

- ☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made at This Time

☐ Not Enclosed

☐ No filing fee is to be paid at this time.

(This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)



Enclosed



Basic filing fee

\$ 355.00

☐ Recording assignment
(\$40.00; 37 CFR 1.21(h))

(See attached "COVER SHEET FOR
ASSIGNMENT ACCOMPANYING NEW
APPLICATION".)

\$ _____

☐ Petition fee for filing by other than all the
inventors or person on behalf of the inventor
where inventor refused to sign or cannot be
reached.

(\$130.00; 37 CFR 1.47 and 1.17(h))

\$ _____

☐ For processing an application with a
specification in
a non-English language. (\$130.00; 37 CFR
1.52(d) and 1.17(k))

\$ _____

☐ Processing and retention fee
(\$130.00; 37 CFR 1.53(d) and 1.21(l))

\$ _____

☐ Fee for international-type search report
(\$40.00; 37 CFR 1.21(e))

\$ _____

NOTE: 37 CFR 1.21(l) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 CFR 1.53(d) and this, as well as the changes to 37 CFR 1.53 and 1.78, indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(l) must be paid, within 1 year from notification under § 53(d).

Total fees enclosed

\$ 355.00

14. Method of Payment of Fees

☒ Check in the amount of \$ 355.00 (# 4436)

☐ Charge Account No. _____ in the amount of \$ _____

A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- ☐ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. _____

- ☐ 37 CFR 1.16(a), (f) or (g) (filing fees)
☐ 37 CFR 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

- ☐ 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
☐ 37 CFR 1.17 (application processing fees)

WARNING: While 37 CFR 1.17(a), (b), (c) and (d) deal with extensions of time under § 1.136(a), this authorization should be made only with the knowledge that: "Submission of the appropriate extension fee under 37 C.F.R. 1.136(a) is to no avail unless a request or petition for extension is filed." (Emphasis added). Notice of November 5, 1985 (1060 O.G. 27).

- ☐ 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

NOTE: 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . issue fee." From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

16. Instructions as to Overpayment

☐ Credit Account No. _____

☒ Refund

Reg. No. 37,055

Tel. No. (415) 457-6933

SIGNATURE OF ATTORNEY

Risto A. Rinne, Jr.

(type or print name of attorney)

2169 East Francisco Blvd. # A

P.O. Address

San Rafael, CA 94901

☐ **Incorporation by reference of added pages**

(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)

- ☐ Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added _____

- ☐ Plus Added Pages for Papers Referred to in Item 4 Above

Number of pages added _____

- ☐ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added _____

☒ **Statement Where No Further Pages Added**

(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item.)

- ☒ This transmittal ends with this page.

IN THE UNITED STATES DEPARTMENT OF COMMERCE
BEFORE THE PATENT AND TRADEMARK OFFICE

Applicant :Ciotic, Egor (no middle name))
Serial No.:) Art Unit:
Filed :) Examiner:
For :Portable Venting Commode)

SMALL ENTITY STATEMENT
UNDER 37 CFR 1.27

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

NOW COMES THE APPLICANT in the patent application being
filed concurrently herewith and avers that:

I am an independent inventor as defined by 37 CFR 9(c).

I hereby declare that all statements made herein of my
own knowledge are true and all statements made on
information and belief are believed to be true; and further
that these statements were made with the knowledge that
willful false statements and the like so made are punishable
by fine or imprisonment, or both, under Section 1001 of
Title 18 of the United States Code and that such willful
false statements may jeopardize the validity of the
application or any patent issued thereon.

11-17-2000
Date Signed


Egor Ciotic (no middle name)
(Applicant)

Express Mail Number: EK 893457999 US

APPLICATION

FOR

UNITED STATES LETTERS PATENT

TITLE: Portable Venting Commode

INVENTOR: Egor Ciotic

EK89345799US

EK 893457 999 US

Portable Venting Commode

This application is related to a prior patent application, now pending, serial number 09/685,411 filed on October 10, 2000 entitled "Ventilation System for Toilets" by the same inventor.

BACKGROUND OF THE INVENTION

1. Field of the Invention:

The present invention, in general relates to portable toilets and, more particularly, to devices that vent odors from portable toilets.

Elderly and infirm people need assistance using a toilet. A portable toilet, hereinafter referred to simply as a "commode" is used for that purpose.

In use the commode may be placed proximate a bed or some other area where the person having need thereof is disposed.

A container that is included and is detachably-attached to the commode. During use, fecal matter and urine are normally deposited into a container along with toilet tissue. The container resembles a pail or bucket in appearance and has a handle and it is detachably-attachable to the commode. A small amount of water is normally placed in the bottom of the container prior to using the commode.

Fecal matter that settles under the water is covered by the water and produces less odor than it would were there no water in the container. After use, the container is later removed from the commode by a caregiver who dumps the contents of the container into a conventional type of a flush-toilet and flushes the fecal matter, tissue, water, and urine away. The interior of the container is cleaned as needed and returned back to the commode.

As is common with bowel movements, a small amount of fecal matter typically is deposited along the inside surfaces of the container. The water may not cover all of the feces either. Urine mixes with the water and produces unpleasant odors as well.

Consequently, the commode will begin to develop an unpleasant (i.e., foul) smell after use. If there is an

extended time until the caregiver can empty and clean the container, this unpleasant odor is experienced by those having to remain in proximity to the commode.

This includes, as mentioned hereinabove, the elderly and the infirm. Those suffering or recovering from all manner of maladies may also require the use of a commode. For example, someone who has broken a leg may be confined to a limited area for a period of time and may require the use of a commode.

Clearly, the odors that arise from the use of a commode are unpleasant. When company visits, no person can feel comfortable after having just had a bowel movement in a commode that is disposed very close, perhaps even next to, the guests. The fear of offending the guests with unpleasant odors will weigh on the person's mind who has just used the commode.

Certain types of commodes also permit their placement directly over the top portion of a conventional "flush-type" toilet. Certain of these types of commodes may also function as a walker that the person can use to provide assistance as they walk to the bathroom.

This general type of commode does not include the container. In use, it is placed over the flush-type toilet after first lifting the cover and, usually, the toilet seat of the flush-type toilet. Urine and fecal matter are deposited during use into the bowl of the flush-type toilet.

The raised sides of the commode allow the person that is using it to sit down and raise themselves up after use, whereas they might not be able to do so with a conventional type of a flush-toilet. Some people leave this type of a commode straddled over the flush-type toilet at all times.

While the odors emanating from this type of a commode are generally less severe than emanating from the stand-alone types of commodes (because the waste matter is soon flushed away), there are still odors produced while it is being used and many of these odors linger in the bathroom for some time.

Accordingly there exists today a need for a portable venting commode that lessens the amount of odor that is produced.

Clearly, such an apparatus would be a useful and desirable device.

2. Description of Prior Art:

Commodos are, in general, known. However, the known types of devices are not believed to anticipate the instant invention. While the structural arrangements of the above described devices may, at first appearance, have similarities with the present invention, they differ in material respects. These differences, which will be described in more detail hereinafter, are essential for the effective use of the invention and which admit of the advantages that are not available with the prior devices.

The above referenced pending patent application, serial number 09/685,411 filed on October 10, 2000 by the present inventor, while different from the instant invention, includes information that may be helpful in understanding the benefits and advantages of the instant invention and it is incorporated by reference herein.

OBJECTS AND SUMMARY OF THE INVENTION

It is an object of the present invention to provide a portable venting commode that lessens odor.

It is also an important object of the invention to provide a portable venting commode that is adaptable for installation of the venting portion in a given area while still being portable.

Another object of the invention is to provide a portable venting commode that is adaptable to be powered by domestic AC voltage and current.

Still another object of the invention is to provide a portable venting commode that is adaptable to be powered by a battery.

Still yet another object of the invention is to provide a portable venting commode that can be placed over an existing flush-type of toilet.

Yet another important object of the invention is to provide a portable venting commode that includes its own container to accumulate human waste.

Still yet another important object of the invention is to provide a portable venting commode that includes a device to adjust it for use with different types of toilets.

Briefly, a portable venting commode of the type that is placed over a conventional flush-type of toilet that is constructed in accordance with the principles of the present invention has a toilet seat and straight chute attached to a portable frame of the commode. The toilet seat includes an opening for conducting the vapors disposed under the toilet seat through a flexible hose to a distal location where they are expelled. A brushless DC motor powered fan provides either suction or positive air pressure to conduct the vapors through the flexible hose. A modified chute is disclosed and it includes a tapered cone-like profile. A flexible ring fits over the exterior of the modified chute and provides a seal intermediate the modified chute and a conventional toilet seat. The modified chute includes a hose connection for directly attaching the flexible hose thereto. A modified type of a portable venting commode that is intended for independent use (not for placement over the conventional flush-type of toilet) includes a frame structure that supports a modified toilet seat that is adapted to pivot over a removable container that collects human waste matter. The modified toilet seat includes a

container seal. A modified vent is provided to conduct vapors away from the container area. According to a preferred embodiment, a brushless DC motor is attached to the frame structure. The flexible hose is attached to the outlet side of the DC motor and is placed at a distal location where the vapors are discharged under positive pressure. According to an alternative embodiment, the motor is placed distally and negative pressure (suction) is used to conduct the vapors from the modified portable venting commode.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in perspective of a portable venting commode that is placed over a conventional type of flush-toilet.

FIG. 2 is a plan view of the bottom of the toilet seat portion of the portable venting commode of **FIG. 1**.

FIG. 3 is a view as shown in **FIG. 2** as seen along the lines 3-3 therein.

FIG. 4 is a side view of a modified type of chute that includes a tapered shape.

FIG. 5 is a view in perspective of a portion of a modified type of a portable venting commode that is independently used.

FIG. 6 is a view in perspective of a child's portable venting commode.

DETAILED DESCRIPTION OF THE INVENTION

Referring to all of the drawings and in particular to **FIG. 1** is shown, a portable venting commode, identified in general by the reference numeral 10.

The commode 10 is intended to be placed over a conventional flush-type toilet (not shown), of the type that are well known devices which are permanently installed in bathrooms in homes everywhere.

It includes a frame structure 12 with handles 14 to use in carrying it. It can double as a walker and help a person reach the conventional flush-toilet in the bathroom.

When reaching the conventional flush-toilet, the conventional toilet cover (not shown) is raised and a conventional toilet seat (see reference numeral 16 shown in dashed lines in **FIG. 4**) that is attached to the conventional flush-toilet is lowered. The commode 10 is then placed over the flush-toilet so a chute 18 passes through an opening provided in the conventional toilet seat 16.

The chute 18 is cylindrical in shape and is open at both ends thereof. It is attached along a first end to a toilet seat 20. The toilet seat 20 includes a center opening 21 and it is attached to the frame structure 12 of the commode 10.

Referring now also to **FIG. 2**, the chute 18 is omitted from the view to better reveal details of the toilet seat 20. Its general location (where it is attached) is shown by a dashed circle and by the reference numeral "18".

Within the space encircled by the chute 18, an opening 22 is formed through the rear of the seat 20 and it extends in the seat 20 to a rear vent assembly, identified in general by the reference numeral 24.

The rear vent assembly 24 includes a "T" fitting 26 and it can be used to exhaust vapors from the space inside the chute 18 (when the commode 10 is disposed over the conventional type of a toilet) to an exterior location, as is described in greater detail hereinafter.

The T fitting 26 includes a first discharge opening 28 and an opposite second discharge opening 30. The second opening 30 includes a removable plug 32. The removable plug 30 prevents air from entering the second discharge opening 30 or vapors from exiting at that location. The first and second discharge openings 28, 30 include threaded ends to facilitate connection thereto of a vent hose 34, partially shown in **FIG. 2**.

If it is preferable to connect the vent hose 34 to the second discharge opening 30 instead of the first 28, the plug 32 is removed from the second opening 30, and a first end 36 of the vent hose 34 is attached to the T fitting 26

at the second opening 30. The plug 32 is then applied to the first opening 28 to seal it instead.

Referring now also to **FIG. 3**, the chute 18 includes an upper taper 38, as necessary to ensure that it fully covers (i.e., encircles) the opening 22 in the seat 20.

The rest of the chute 18 is straight so that when it is placed inside the conventional toilet seat 16, the outer diameter of the chute 18 forms an effective seal with the inside diameter of the opening provided in the conventional toilet seat 16.

As the height of legs 40 of the frame structure 12 can be adjusted to suit the user (not shown), it is not possible to know the exact depth that the chute 18 will penetrate the opening in the conventional toilet seat 16.

Accordingly, the straight sides of the chute 18 ensure an effective fit with the opening in the conventional toilet seat 16 regardless of the relative height between the two.

If desired, an additional layer 42 is added under the seat 20 to cover the opening 22 as it extends toward the

rear vent assembly 24. The additional layer 42 can also be formed integral with the chute 18, if desired.

Referring now to **FIG. 4**, a modified chute 50 is attached to a modified seat 51 that includes a tapered cone-like profile. The modified seat 51 does not include the rear opening 22. The modified seat 51 is similarly attached to the frame structure 12 in place of the seat 20 and chute 18, as described hereinabove.

A flexible ring 52 fits over the exterior of the modified chute 50 and it provides a seal intermediate the modified chute 50 and the conventional toilet seat 16, regardless of how the legs 40 of the commode 10 are adjusted.

The flexible ring 52 can expand or contract as desired so that it can be urged up or down over the modified chute 50 along its longitudinal length.

The modified chute 50 includes an elbow fitting 54 that allows for connection of the vent hose 34 thereto.

Referring again to **FIG. 1**, a DC brushless low power motor/fan assembly 56 is attached to the frame structure 12. A second end of the vent hose 34 is attached thereto.

A battery pack 58 is attached to the frame structure 12 and it supplies the electrical energy to run the fan assembly 56.

A switch 60 is used to turn the fan assembly 56 on and off, as desired. The switch 60 may be a mechanical switch such as a toggle switch or it can be a motion detector, such as an infrared or other type of motion (or presence) detector that scans the area over the seat 20 and turns the fan assembly 56 on while someone is disposed on the seat 20 and possibly for a limited time thereafter, and then shuts it off.

A second flexible vent hose 62 is attached to the fan assembly 56 at a discharge location thereof and is used to conduct vapors to a location away from the commode 10 where the odor of the vapors will not offend.

A preferred way to accomplish this is to provide a discharge assembly 64 through an exterior wall of the structure and attach the second hose 62 thereto. Arrows 66

indicate the vapors being discharged away from the commode 10.

The second hose 62 can be any preferred length.

Another preferred way is to eliminate the second hose 62 and to interface to the venting system, identified by the reference numeral 68 and shown in dashed lines. The system 68 is described in greater detail in pending patent application serial number 09/685,411 filed on October 10, 2000 by the same inventor.

When the system 68 is used, the first vent hose 34 is merely connected to a port 70 that is provided in the system 68 for that purpose. This connection is shown in **FIG. 1** in dashed lines.

The vapors are then sucked out (i.e., by a partial vacuum) by the system 68 motor (not shown) that is distally located. The vapors enter into the port 70 where they are conducted through system piping (not shown) to the system 68 motor for discharge in accordance with the installation of the system 68.

If desired, the system 68 need not be used. An alternative way to use the portable venting commode 10 is to attach a remote motor 72 that is shown in dashed lines surrounding the discharge assembly 64. The remote motor 72 may be installed in the exterior wall or it may be located outside. It is powered by a DC power supply that converts household 120 VAC power into DC to power the DC brushless remote motor 72.

All of the preferred embodiments rely upon the use of some sort of a DC brushless motor attached to a fan so as to eliminate sparks from arising when the motor turns on or off that could potentially ignite the vapors.

Also, these types of motors consume very little electrical energy. Their low power consumption makes them suitable even for continuous duty operation (i.e., being left on all the time) as well as being powered by the battery pack 58.

Finally, it is noted that the seat 20 and the modified seat 51 are rigidly attached to the frame structure 12 of the commode 10, and therefore, do not move in relation thereto.

Referring now to **FIG. 5**, when the user is unable to travel to the bathroom and therefore is unable to use the commode 10, a solution that is disposed nearer to the user must be provided.

For this purpose, a modified type of a portable venting commode, identified in general by the reference numeral 100, that is intended for independent use (not for placement over the conventional flush-type of toilet) is provided.

The modified commode 100 includes a modified frame structure 102 (shown partially in dashed lines) that supports a modified toilet seat 104.

Only a portion of the modified toilet seat 104 is shown. The unseen remainder is consistent with other types of toilet seats except for the component parts of the invention and the component parts of the instant invention merely continue as shown so as to extend and to encircle the area that is missing from the view in the **FIG. 5** drawing.

The modified toilet seat 104 includes hinges 106 and it is adapted to pivot about an axis over a removable container 108 that is used to collect human waste matter therein.

The modified frame structure 102 includes a pair of rails 110 that are used to support and to properly align the container 108 under a toilet seat opening 112 when the modified toilet seat 104 is disposed in a lower position (i.e., over the container 108).

The container 108 resembles a pail and it includes a bottom 114 that can contain fluids and waste matter therein. In normal use, a small quantity of water is placed in the container prior to defecation by the user.

The modified toilet seat 104 includes a container seal 116 that is attached to the bottom thereof by brackets 118 and screws 120. The container seal 116 takes up any space intermediate the bottom of the modified toilet seat 104 and the top of the container 108 when the modified toilet seat 104 is disposed in the lower position.

The container seal 116 includes a seal opening 122 in the rear thereof. A modified rear vent assembly 124 is disposed to the rear of the modified frame structure 102. The modified rear vent assembly 124 includes a frontal opening 126 that aligns with and abuts the seal opening 122 when the modified toilet seat 104 is disposed in the lower position.

The modified rear vent assembly 124 is similar to the vent assembly 24 as was described hereinabove for use with the commode 10. Accordingly, the vent hose 34 is shown attached to the motor/fan assembly 56 proximate the battery pack 58. The second flexible vent hose 62 is shown attached to the fan assembly 56.

Any of the configurations involving location of the motor fan assembly 56, discharge of vapors, and use of the system 68, as described hereinabove for use with the commode 10, apply also for use with the modified commode 100.

If the remote motor 72 is used with the modified commode 100, it may be desirable to leave it running all of the time. This will ensure that even when no one is sitting on the modified toilet seat 104 or using the modified commode 100, that odors (i.e., vapors) that persist in the container 108 will be removed from the room in which the modified commode 100 is disposed.

It is also noted that a modified toilet seat cover (not shown) is typically used with the modified commode 100 and it is adapted to pivot as well about the axis and to cover the modified toilet seat 104 and hide the contents of the

container 108 from view after waste matter has been deposited in the container 108.

When the modified toilet seat cover is disposed in a lower position (i.e., over the modified toilet seat 104), it provides a seal that helps to prevent vapors (i.e., odors) from leaving the area proximate the container 108 and entering into the room where the modified commode 100 is located.

If the remote motor 72 is used and if it is left running all of the time with the modified commode 100, then virtually no odors can escape or be detected and the modified commode 100 can be left proximate the user (and any visitors) without embarrassment.

Normally, a caregiver (not shown) will eventually remove the container 108, empty the contents of the container 108 into a conventional flush-type toilet, clean the container 108 of any residue fecal matter that may adhere to its sides, add more water thereto, and return it to the modified commode 100 for subsequent reuse.

Accordingly, the modified commode 100 provides for truly portable and independent use by the user. It may be

placed proximate the user without causing excessive unpleasant odors.

The second vent hose 62 may be temporarily placed through an opening provided by partially opening a window (not shown) or a door (not shown), if preferred.

Referring now to **FIG. 6**, a child's portable venting commode 200 is shown in a partially exploded view with a child's seat 202 elevated above a base 204. A cup 206 collects waste matter and is removable.

A channel 208 conducts vapors to a rear fitting 210. The vent hose 34 (not shown in this view) is attached thereto as are the other component parts as are described hereinabove. Accordingly, it is shown that the instant invention is adaptable to any size as needed.

The invention has been shown, described, and illustrated in substantial detail with reference to the presently preferred embodiment. It will be understood by those skilled in this art that other and further changes and modifications may be made without departing from the spirit and scope of the invention which is defined by the claims appended hereto.

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CLAIMS

1. A portable venting commode, comprising:

(a) a portable frame structure;

(b) means for providing a toilet seat attached to said portable frame structure; and

(c) means for venting vapors to a distal location.

2. The portable venting commode of claim 1 wherein said portable frame structure is adapted for placement over a conventional fixed-mount flush-type of toilet.

3. The portable venting commode of claim 2 wherein said means for venting includes means for urging vapors to said distal location.

4. The portable venting commode of claim 3 wherein said means for urging vapors includes a fan that is powered by a DC motor.

5. The portable venting commode of claim 3 wherein said means for urging vapors includes flexible hose means and means for generating a positive pressure in at least a portion of said flexible hose means.

6. The portable venting commode of claim 3 wherein said means for urging vapors includes flexible hose means and means for generating a negative pressure in at least a portion of said flexible hose means.

7. The portable venting commode of claim 3 wherein said means for providing a toilet seat included opening means therein, wherein said opening means is adapted for cooperating with said means for urging vapors.

8. The portable venting commode of claim 2 including means for providing a chute attached to said means for providing a toilet seat.

9. The portable venting commode of claim 8 wherein said means for providing a chute includes a chute that includes an opening at a distal end with respect to an end where said chute is attached to said means for providing a toilet seat, and wherein said chute is adapted to discharge human waste matter into said flush-type of toilet, and wherein said chute includes a portion thereof that is cylindrical in shape.

10. The portable venting commode of claim 8 wherein said means for providing a chute includes a chute that includes an opening at a distal end with respect to an end where said chute is attached to said means for providing a toilet seat, and wherein said chute is adapted to discharge human waste matter into said flush-type of toilet, and wherein said chute includes a portion thereof that is conical in shape.

11. The portable venting commode of claim 10 wherein said chute includes means for attaching a flexible hose thereto.

12. The portable venting commode of claim 10 including means for providing a seal intermediate said chute and a

conventional type of a toilet seat that is attached to said flush-type of toilet, and wherein said chute is adapted for placement through an opening provided in said conventional type of a toilet seat.

13. The portable venting commode of claim 2 wherein said means for venting includes means for urging vapors to said distal location and wherein said means for urging vapors includes a fan that is powered by a DC motor and wherein said fan is attached to said frame structure.

14. The portable venting commode of claim 2 wherein said means for venting includes means for urging vapors to said distal location and wherein said means for urging vapors includes a fan that is powered by a DC motor and wherein said fan is attached distally with respect to said frame structure.

15. The portable venting commode of claim 1 wherein said portable frame structure is adapted for stand-alone use.

16. The portable venting commode of claim 15 wherein said commode includes container means disposed under said means for providing a toilet seat.

17. The portable venting commode of claim 16 wherein said means for providing a toilet seat is adapted to pivot about an axis from a lower position into an upper position and wherein said container means is adapted for removal apart from said commode when said means for providing a toilet seat is disposed in said upper position.

18. The portable venting commode of claim 17 wherein said means for providing a seat includes means for providing a seal intermediate a bottom of said means for providing a seat and said container means when said toilet seat is disposed in said lower position.

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ABSTRACT OF THE DISCLOSURE

An apparatus for the discharge of urine and fecal matter into a portable venting commode apparatus includes a chute attached to a toilet seat that is inserted into a conventional type of flush-type toilet. A modified tapered chute is described along with a seal mechanism. A DC brushless fan motor and flexible vent hoses are used to conduct offensive smelling vapors through an opening in the toilet seat, through a vent assembly and out of the area. A modified stand alone apparatus that does not cooperate with the flush-type toilet is described that includes a removable container for collecting the urine and fecal matter therein that is later emptied when needed. A pivoting seat, a container seal, and modified vent assembly are similarly described. The fan motor may be operated from conventional AC power that is converted into DC power or it may be run off of batteries. Preferably, it is attached to a supporting frame structure of either version of the commode apparatus along with a battery pack and is used to expel the vapors under positive pressure through one of the vent hoses to a distal location.

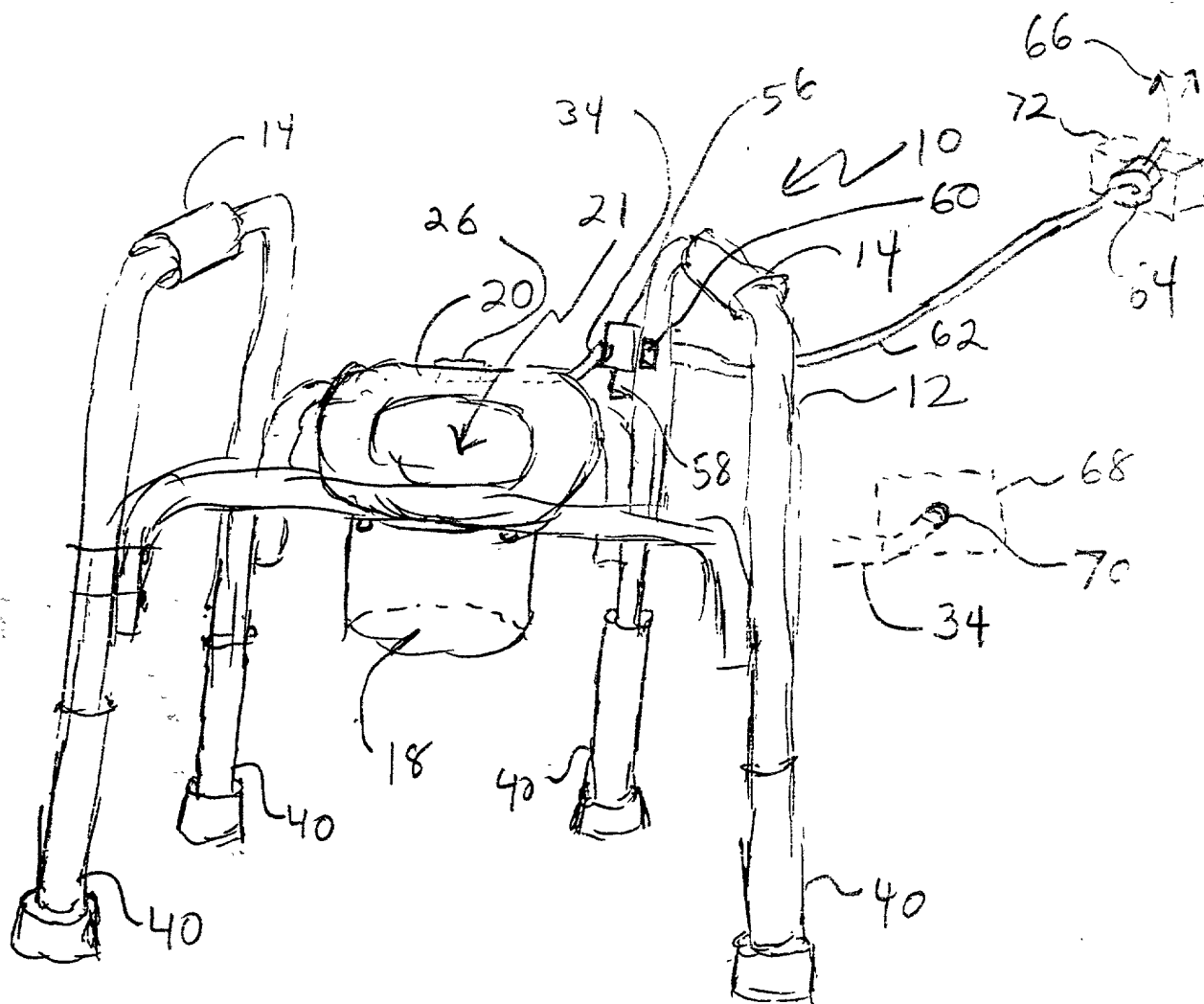


FIG. 1

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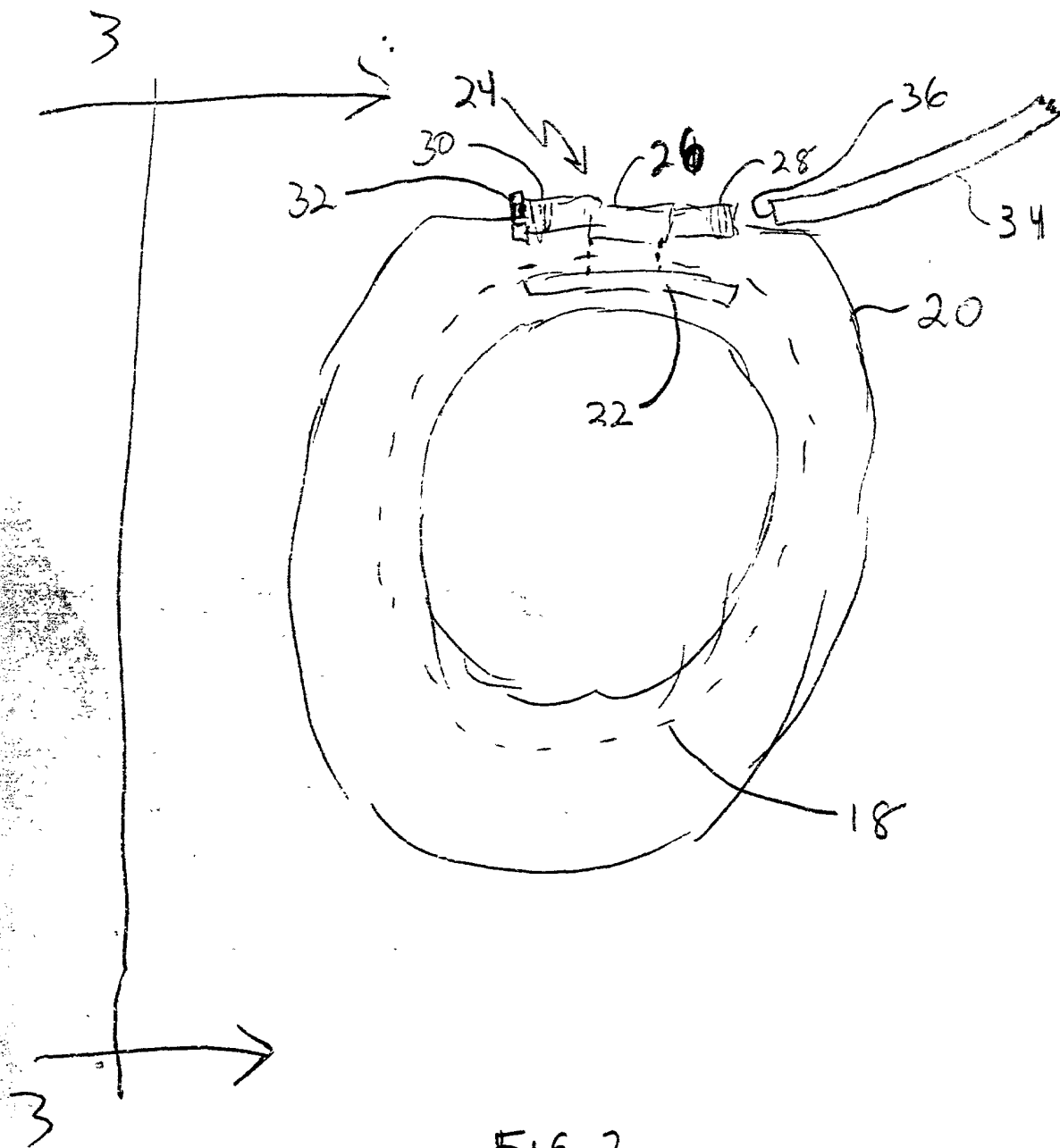
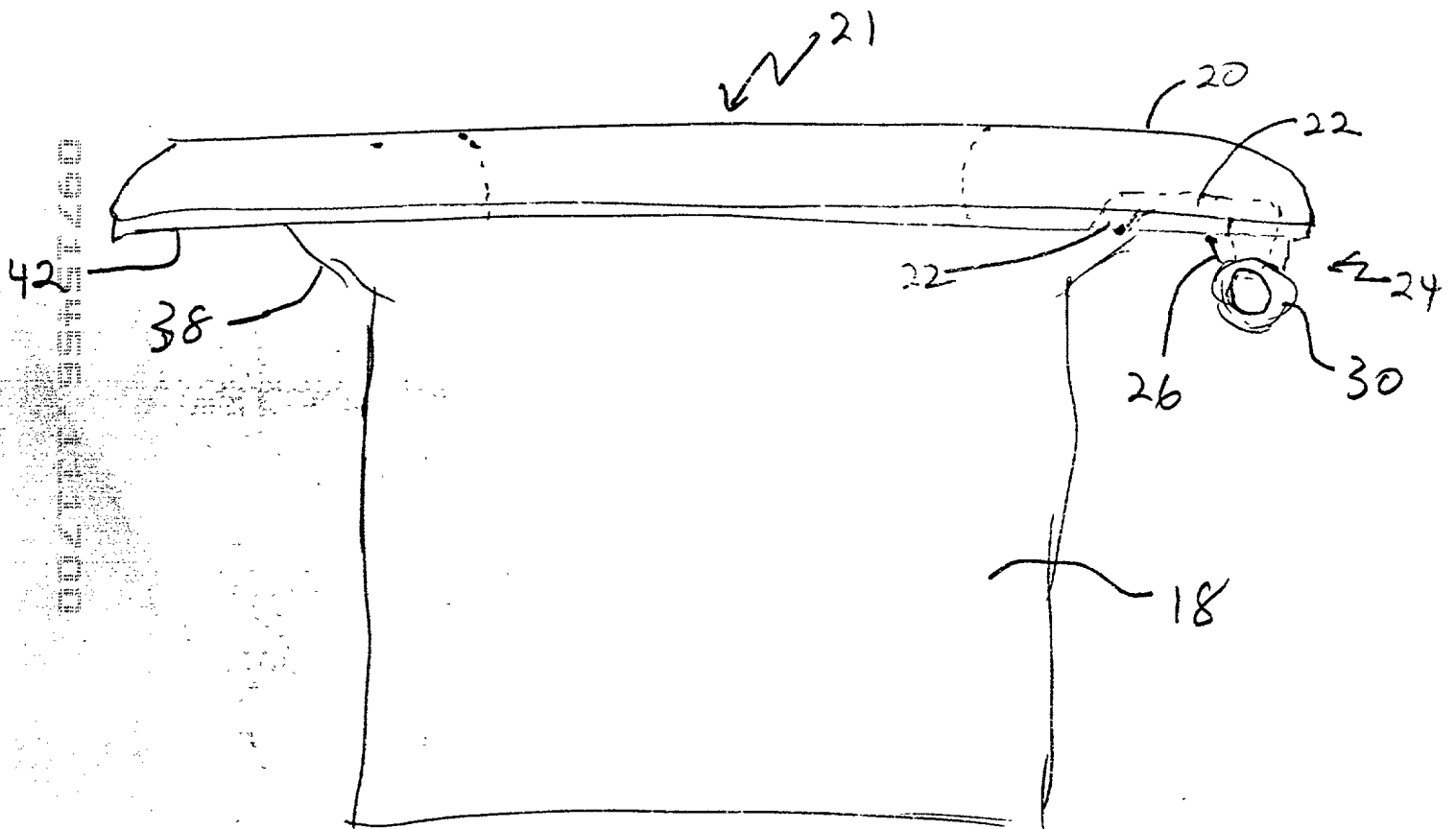


FIG 2

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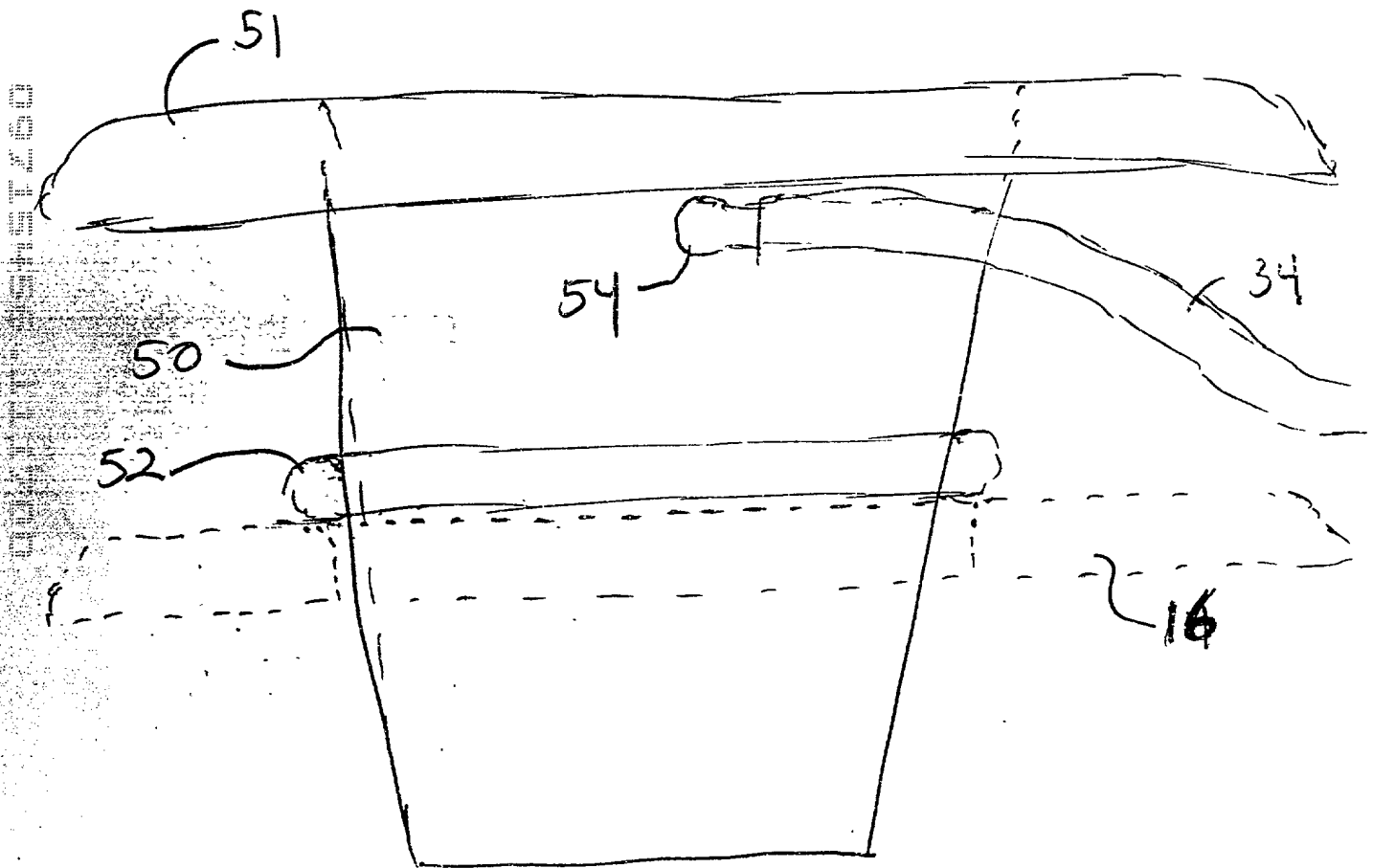
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FIG. 3



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FIG. 4



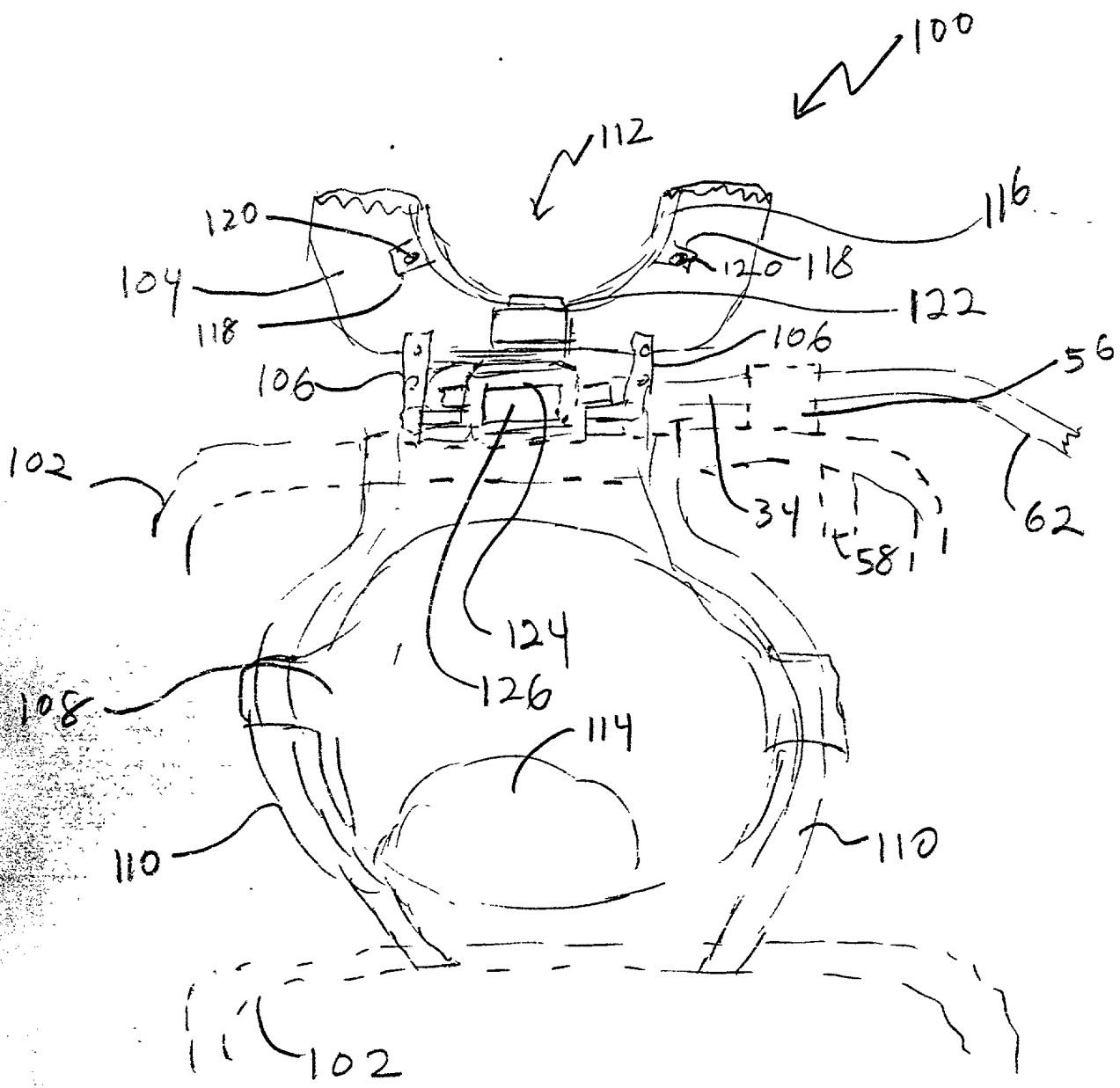


FIG. 5

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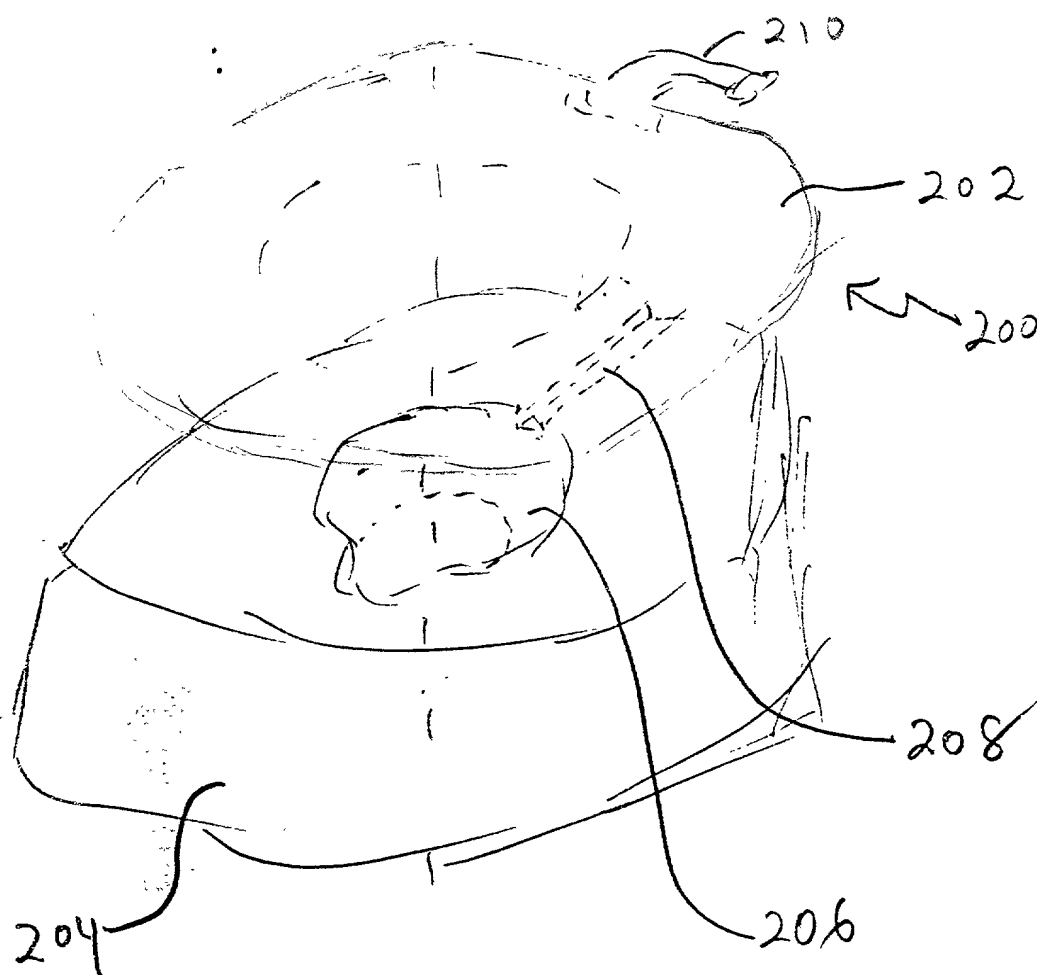


FIG. 6

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DECLARATION AND POWER OF ATTORNEY

As the below named inventor, I hereby declare that:

- 1) My residence, post office address, and citizenship are as stated below next to my name, which is my full name.
- 2) I believe I am the original, first, and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Portable Venting Commode

the specification of which is attached hereto. I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims.

- 3) I acknowledge the duty to disclose information which is material to the examination of this patent application in accordance with Title 37, Code of Federal Regulations, Section 1.56 (a).

- 4) No application to patent this invention has been filed in any country foreign to the United States prior to the date of this patent application.

I hereby declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I hereby appoint the following as my agent to prosecute this patent application and to transact all business in the Patent and Trademark Office in connection therewith:

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